



Outputs from 2013-2016

New Partners

ESIP accepts new partner applications each spring. Applications are invited from any interested groups including data centers, research institutes, educational groups, commercial interests and other organizations that provide Earth science data and technology services. From 2013 to 2016, ESIP accepted 47 new partner organizations. As of March 2016, ESIP has 180 partner organizations.

2016	
Consortium of Universities for the Advancement of Hydrologic Science	Type I
National Agricultural Library	Type I
Northwest Knowledge Network	Type III
Data Semantics Laboratory	Type II
American Geophysical Union	Type II
2015	
UC Berkeley Libraries	Type I
E-DECIDER	Type II
Geological Data Center, SCRIPPS	Type I
University of California Natural Reserve System	Type II
Monterey Bay Aquarium Research Institute	Type II
COOPEUS	Type I
US Global Change Research Program GCIS Team	Type II
Liquid Robotics Inc.	Type I
Kitware	Type III
Center for Research in Water Resources	Type II
University of New Mexico Library	Type III
Center for Ocean-Atmospheric Prediction Studies	Type II
Purdue Libraries	Type II
Marymount University	Type II
UNAVCO	Type I
GeoGateway	Type II
2014	
Microsoft Research	Type III
Science Exchange	Type III

Climate Data LLC	Type III
National Academy of Science	Type II
Element84	Type II
GRNOC	Type II
Vermont Monitoring Cooperative	Type II
R2R	Type I
US LTER	Type I
2013	
IMOS	Type II
BCO-DMO	Type I
Discinnet Labs	Type II
Colombian Geological Survey	Type II
Mercury Consortium	Type III
NCEAS	Type II
CMAS	Type III
OPeNDAP	Type II
LSIS	Type III
JPL Data Systems and Technology Group	Type II
Geological Survey of Alabama	Type II
Woods Hole Oceanographic Institution	Type II
Vightel Corporation	Type II
Consortium for Ocean Leadership	Type II
Knowledge Motifs	Type III
NASA Capacity Building Program	Type III
Met European Research Obs	Type II

Testbed Projects

The ESIP Testbed is a space where prototype standards, services, protocols and best practices can be incubated and matured. From 2013 to 2016, ESIP supported 12 projects in the Testbed.

2015		
ESIP	AIST Technology Evaluations	Products and Services
Tom Narock	Consuming and Reusing Semantic Geoscience Data	Semantic Web Cluster
Dave Jones	Addressing an Immediate Need: Establishing the Multi-State Fleet Response Working Group C-COP to Accelerate Geospatial Data Testing Across Public and Private Sectors	Disaster Cluster
Emily Law	Expanding a Collaborative Common Operating Picture (CCOP) to Accelerate Geospatial Data Testing	Disaster Cluster
John Graybeal	Evaluating Prototypes in ESIP's Testbed Ecosystem (FastTrack)	Products & Services
2014		
Emily Law	Disaster Life Cycle Testbed - An ESIP Product & Service Testbed Proposal: Establishing a Collaborative Common Operating Picture (C-COP)	Disaster Cluster
Eugene Chi	Connect, Share and Discover ESIP Research and Expertise using VIVO Technology	ESIP Testbed Web Support
Marshall Ma	An entity linking service for documents and datasets in Earth and environmental sciences	Semantic Web
Matthew Ferritto	ToolMatch Service Testbed Project Proposal to Expand Community Engagement	ToolMatch - Semantic Web Cluster
Matthew Ferritto	ToolMatch Service Testbed Project	Semantic Web Cluster, Energy & Climate Cluster
Michael Huhns, Line Pouchard	Evaluating the ESIP Ontologies for Mapping and Reconciliation	Semantic Web Cluster
2013		
Zhipeng Gui, Jizhe Xia, Nanyin Zhou, Chaowei Yang	Develop a cloud computing adoption advisory tool	Cloud Computing Cluster

FUNding Friday Projects

FUNding Friday is an opportunity for students and ESIP members to receive funding during the Summer Meetings. The Products and Services Committee hosts an evening event for those interested in putting together a poster (their proposal), which is presented to the ESIP community during the meeting. From 2013 to 2016, ESIP awarded 19 FUNding Friday grants.

2015	
Sean Barberie (student)	HumanHAB
Brandon Whitehead (student)	Semantic models for the ESIP community
Sarah Ramdeen (student)	Stewardship of physical data, Use case and community engagement
Sophie Hou (student)	Roadmap for the Next Generation Data Management Training Modules
Soren Scott	A Github Badging System
Wade Bishop	Harvesting Information Partnerships for Geospatial data Education and Outreach (HIPGEO)
Shelley E. Olds	Interactive Interface To Explore Natural Hazards And Vulnerability In Coastal Communities
2014	
Bruce Caron, Adam Shepherd	Working Group Syndicated Content Tool
Kaijian Xu	Rich Semantic Annotation for Science Media Repositories
Kelly Monteleone (student)	Converting mb-system Files in Windows and Apple
Kevin Dobbs (student)	Leveraging the Power of Google Earth Engine to Derive High Quality Water Reference Data for Flood Disaster Decision Support
Kyle Nelson (student)	Enhancing and Educating with the WxSat Mobile App
Lee Hyokyung	HDFCRAFT – Making Earth Data Fun!
Matt Ferrito	ToolMatch Extension
2013	
Annette Schloss	Demonstration of a mobile application for estimating forest canopy closure using digital photographs
Denise Hills, Sarah Ramdeen	Making the Case for Data Stewardship Use Cases: A Community Building and Engagement Exercise
Jin Guang Zheng	Semantic Similarity Computation and Concept Mapping in Earth and Environmental Science
Chunming Peng	Agricultural Drought Information Cluster

(student)	
Emily Northrup (student)	Aquaponics For Triage and Emergency Response (AFTER)

Member Highlights

ESIP Member Highlights are short blog posts designed to highlight something "newsworthy" or novel happening within an ESIP member organization. Member Highlights also introduce new partner organizations to the broader ESIP community. From 2013 to 2016, 20 Member Highlights were published.

2016
Member Highlight: AGU
Member Highlight: CUAHSI
Member Highlight: Data Semantics Laboratory
Member Highlight: National Agricultural Library
2015
Member Highlight: NASA Earth Observations
Member Highlight: UNAVCO
Member Highlight: SSEC 50th Anniversary
Member Highlight: Alaska Satellite Facility
Member Highlight: Kitware
2014
Member Highlight: The Goddard Earth Sciences Data and Information Services Center (GES DISC)
Member Highlight: StormCenter Communications, Inc.
Member Highlight: NCAR
Member Highlight: SERC InTeGrate
Member Highlight: NOAA's National Geophysical Data Center (NGDC)
Member Highlight: NASA Socioeconomic Data and Applications Center (SEDAC)
Member Highlight: The HDF Group
Member Highlight: NOAA's National Oceanographic Data Center (NODC)
Member Highlight: Information Technology and Systems Center (ITSC) - at the University of Alabama in Huntsville (UAH)
Member Highlight: Cooperative Institute for Meteorological Satellite Studies
Member Highlight: Rensselaer's Tetherless World Constellation

Scholarly Publications

The ESIP Data Stewardship Committee has worked to improve data practices on a number of fronts for many years and remains at the forefront of data preservation, technologies, techniques and thinking. For example, the committee developed Data Citation Guidelines, which are now referenced in the author instructions of the journals of the American Geophysical Union; their use provides credit for data producers and repositories. Most recently, through work initiated by NOAA's Data Maturity Matrix, the Committee is developing a uniform metric for assessing the state of curation—access, preservation, utility for purpose, etc—that will work across all types of Earth science data repositories, providing users an easier time determining what data is suitable for their needs and repositories understand the current state of any given data set. Their work has resulted in the following recent publications:

- Downs, R. R., Duerr, R., Hills, D. J., & Ramapriyan, H. K. (2015). Data stewardship in the Earth sciences. *D-Lib*, 22(7/8). doi: [10.1045/july2015-downs](https://doi.org/10.1045/july2015-downs)
- Downs RR, Lenhardt WC, Robinson E, Davis E, Weber N (2015) Community Recommendations for Sustainable Scientific Software. *Journal of Open Research Software*, 3: e11. <http://dx.doi.org/10.5334/jors.bt>
- Special Issue: Rescuing Legacy Data for Future Science
 - Hills, D. (2015). Let's make it easy: A workflow for physical sample metadata rescue. *GeoResJ*, 6, 1-8. doi: [10.1016/j.grj.2015.02.007](https://doi.org/10.1016/j.grj.2015.02.007)
 - Ramdeen, S. (2015). Preservation challenges for geological data at state geological surveys. *GeoResJ*, 6, 213-220. doi: [10.1016/j.grj.2015.04.002](https://doi.org/10.1016/j.grj.2015.04.002)
- Hills, D., Downs, R. R., Duerr, R., Goldstein, J. C., Parsons, M. A., & Ramapriyan, H. K. (2015). The importance of data set provenance for science. *EOS*, 96. doi: [10.1029/2015EO040557](https://doi.org/10.1029/2015EO040557)
- Hou, C.-Y. (2015) Meeting the needs of data management training: The Federation of Earth Science Information Partners (ESIP) Data Management for Scientists Short Course. *Issues in Science and Technology Librarianship*, 80. doi: [10.5062/F42805MM](https://doi.org/10.5062/F42805MM)
- Mayernik, M. S. Ramamurthy, M. K., & Rauber, R. M. (2015). Data archiving and citation within AMS journals. *Mon. Wea. Rev.*, 143, 993–994. doi: [10.1175/2015MWR2222.1](https://doi.org/10.1175/2015MWR2222.1)
- Peng, G., Privette, J. L., Kearns, E. J., Ritchey, N. A., & Ansari, S. (2015). A unified framework for measuring stewardship practices applied to digital environmental datasets. *Data Science Journal*, 13, 231-253. doi: [10.2481/dsj.14-049](https://doi.org/10.2481/dsj.14-049)
- Starr J, Castro E, Crosas M, Dumontier M, Downs RR, Duerr R, Haak LL, Haendel M, Herman I, Hodson S, Hourclé J, Kratz JE, Lin J, Nielsen LH, Nurnberger A, Proell S, Rauber A, Sacchi S, Smith A, Taylor M, Clark T. (2015) Achieving human and machine accessibility of cited data in scholarly publications. *PeerJ Computer Science*, 1:e1 <https://dx.doi.org/10.7717/peerj-cs.1>

Student Fellows

ESIP Student Fellows are graduate students and postdoctoral researchers interested in bridging the gap between informatics and Earth science. Fellows learn about career paths, enhance their skillset around Earth sciences data and informatics, and expand their professional networks. Between 2013 and 2016, ESIP supported 16 fellows from 14 different universities.

2015-2016

- Lindsay Barbieri, Earth Science Data Analytics (University of Vermont)
- Sean Barberie, Disaster Lifecycle (University of Alaska Fairbanks)
- Sophie Hou, Data Stewardship (University of Illinois)
- Fei Hu, Cloud Computing (George Mason University)
- Alison Adams, Energy and Climate (University of Vermont)
- Chris Beltz, Agriculture and Climate (University of Wyoming)
- Sam Silva, Discovery (MIT)
- Johanna Bozuwa, Education (Universiteit Utrecht)

2014-2015

- Lindsay Barbieri, Agriculture and Climate (University of Vermont)
- Sean Barberie, Disaster Lifecycle (University of Alaska Fairbanks)
- Sophie Hou, Data Stewardship (University of Illinois)
- Fox Peterson, EnviroSensing (Oregon State University)
- Nic Weber, Science Software (University of Illinois)
- Brandon Whitehead, Semantic Web (University of Aukland)

2013-2014

- Reid Boehm, Agriculture and Climate (University of Tennessee)
- Kevin Dobbs, Disaster Response (University of Kansas)
- Kelly Monteleone, Documentation (University of New Mexico)
- Kyle Nelson, Education (University of Wisconsin)
- Sarah Ramdeen, Data Stewardship (University of North Carolina)
- Nic Weber, Science Software (University of Illinois)

ESIP Meeting Proceedings

Content from past ESIP meetings is archived in the ESIP Commons, a knowledge repository created by members of the ESIP community.

2013-2016 Winter Meeting Proceedings, Washington, D.C.

- 2016 - [Frontiers in Earth Sciences Big Data](#)
- 2015 - [Earth Science and Data in Support of Food Resilience: Climate, Energy, Water Nexus](#)
- 2014 - [15 Years of Making Data Matter](#)
- 2013 - [ESIP Advancing Earth Science Information: From Climate Assessment to Intelligence to Action](#)

2013-2015 Summer Meeting Proceedings

- 2015 - [The Federation of Earth Science Information Partners & Community Resilience: Coming Together - Pacific Grove, CA](#)
- 2014 - [Linking It Together: Sustainable Software Advancing Science Data and Services - Frisco, CO](#)
- 2013 - [Building the Value Chain for Earth Science Data and Information in Disaster Planning, Response, Management and Awareness - Chapel Hill, NC](#)